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Motivation and factors characterizing adult learners enrolled in evening courses at Drake University

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MOTIVATION AND FACTORS CHARACTERIZING
ADULT LEARNERS ENROLLED IN EVENING
COURSES AT DRAKE UNIVERSITY.

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MOTIVATION AND FACTORS CHARACTERIZING ADULT LEARNERS
ENROLLED IN EVENING COURSES AT DRAKE UNIVERSITY

by

James Gordon Dugger

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of
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Approved:

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CHAPTER I

INTRODUCTION

Continuing education, frequently referred to as adult education, includes those organized educational opportunities, other than regular full time and summer day college programs, which provide opportunity for adults and out-of-school youth to further their education, regardless of their previous educational attainment. America has entered an era so complex, so awesome, so bewildering that daily living itself has become a major challenge. Such an era offers the people three choices. They can seek the knowledge necessary to fit into such a world, they can live in increasing confusion and frustration, or live in partial adjustment ignoring much of their environment.

Professional educators must realize now their obligations to all those who choose to learn. They must provide for imaginative, meaningful programs which are based on the needs of adults in a free society and should make certain that the educational philosophy, curricula, and methods are geared to an adult audience. Professional educators in

adult education must help the general public, as well as other educators, to understand and accept the idea of providing education for all who want it, not just for children, youth and "other people." Professional educators must help the general public see that education is a life-long process and that adult education is a major responsibility of educational institutions.

The major purpose of continuing education is to enable men and women to function more efficiently as citizens, parents and homemakers, and workers. Therefore, the objectives of continuing education should be:

1. To make people aware of their civic responsibilities to one another to the extent that they participate in community, national and world affairs.
2. To make them economically more efficient.
3. To develop a sense of responsibility and a knowledge of how to proceed in making personal adjustments to daily work, home life, and family relationships.
4. To promote health and physical fitness.
5. To provide means for encouraging cultural development and an appreciation of the arts, sciences and the humanities.

The curriculum should seek to serve the educational needs of both the individual and the society. Educational needs, for the most part, grow out of the responsibilities adults hold as individuals, as parents, as workers, as

members of a family, and as citizens. It therefore should include program activities designed to provide the kinds of information, knowledge and skills necessary to enable the individual citizen to more adequately fulfill his responsibilities to himself and to society.

The curriculum should help each adult citizen to develop to the maximum his individual potentialities, and help him achieve a high level of personal fulfillment. It should provide him with opportunities to develop creative talents, refine values, and to develop a worthy use of leisure time. It should also provide a rich variety of arts and sciences, cultural offerings, and leadership training. An adult in our society today cannot fulfill his responsibilities effectively without the basic tools of communication and a reasonably good knowledge of himself in relation to the world about him. A primary concern of the adult curriculum, therefore, should be to provide basic education for the illiterate and the under educated. Beyond this point, it should include a well planned program of parent and family life education; opportunities for vocational training and retraining; educational and vocational guidance; and education in civic and public affairs.

It is a responsibility of the adult division to distinguish carefully between the educational needs of individuals and other kinds of needs which can more appropriately be served by other community agencies or institutions. The curriculum of the adult evening division should be clearly distinguished by its educational content, and not by its peripheral values.

Statement of the Problem

The purpose of this investigation is to study the Adult Learner enrolled in university evening courses for credit and to determine by statistical methods how motivation and other factors as identified by the adult student relate to his academic success.

Several sources were used in order to obtain material and statistics regarding the adult learner. Among these were:

1. Center for the Study of Liberal Education for Adults.
2. Iowa State University of Science and Technology Libraries.
3. Drake University Libraries.
4. Iowa State Traveling Library.

5. Public Library of Des Moines, Iowa.

Statistical data for the study were limited to the student body of University College, Center for Continuing Education at Drake University.

Value and Significance of the Problem

The motivations of adults to participate in group activities are of central concern to persons engaged in the development of both educational and non-educational programs for adults. Research in motivation has been conspicuously lacking in the field of adult education despite the fact there are specific problems which adult educators face whose only solution may be based on empirical understanding of motivation. Especially when compared with the complexity of adult motivation, there has been comparatively little research relating motivation to participation of adults. It is important therefore to understand why this area has had so little attention even in terms of applying the findings of psychologists.

Motivation defined In the classic and basic statement of the frame of social psychology, Sherif (29) defines the generic term, motives, as "goal-directed behavior."

He then divides this into the "unlearned, biogenic motives" which originate in the functioning of organic needs, and the "learned, sociogenic motives" which are acquired in the course of genetic development of the individual, and the goals of which are derived from interpersonal experience. The latter, or learned, motives are of primary concern herein.

Munn (20) defines motivation as "the dynamics of behavior." In terms of its derivation, the word motive means to move, to activate. In this general sense, anything that initiates activity, whether external or internal, is motivating. In psychology, however, the terms motivation and motive refer to activation from within the organism. Thus motivated behavior is internally activated, or at least modified by, internal conditions. A motive, therefore, is some internal activator or modifier.

A similar definition of motive is presented by Sanford (27). "A motive is an energizing condition of the organism that serves to direct that organism toward a certain goal." Psychological motives are constructs used to account for the social or interpersonal behavior of the individual. Such motives are more a product of the environment in which a person lives and less a product of the individual's organic

nature.

Two authors have in recent years stressed the idea, consonant with but not explicitly supported by data, that human motives can be arranged in a hierarchy from stronger and lower at one end to weaker and higher at the other. Such an idea has a significance both for a theoretical and a practical approach to motivation and commands attention here.

The hierarchy as originally described by Maslow (18) is as follows:

1. The physiological needs, hunger, thirst, air, etc.
2. The safety needs, the need for freedom from threat or danger, the need to ally oneself with the familiar and the secure.
3. The belongingness and love needs, the need for affiliation, for belongingness, for acceptance.
4. The esteem needs, the need for achievement, for strength, for competence, for reputation, for status or prestige.
5. The need for self-actualization, the need for self-fulfillment, to realize potentialities, to become what one is capable of becoming.
6. Cognitive needs, the need to know and understand, curiosity, the need to understand the mysterious, the need to tackle the unknown.
7. Esthetic needs, the need for symmetry, order, system and structure.

This approach to motivation has it that the lower needs, in the face of deficits, are the more potent needs. In order for motives of a self-actualizing kind to become activated and to lead to behavior, the theory goes, there must be a freedom from deficits, a freedom from the potent necessity to seek physiological goals or safety goals or even the social goals of love and belongingness. Necessity, this theory has it, is not the mother of invention. Certainly not the grim necessity of sheer survival or the necessity of finding enough food. Freedom from deficit, according to this view, constitutes the conditions of invention and creativity--which grow out of the cognitive and esthetic needs.

Proceeding from this general view of the hierarchy of motives, the second author, McGregor (19) has pointed out that in the management of human affairs, in industry and elsewhere, efforts to create the conditions under which the higher motives can become activated may have mighty consequences for the level and quality of human productivity and creativity.

Beals (1) surveyed motivations for college alumni education. The students were, in general, out of college 10 to 25 years, and the median age was 41.6 years. The

questionnaire answers revealed that more than one motive was operative for each person. The relative frequencies of motives were: 52 per cent intellectual curiosity, subject interest and desire for mental stimulation; 19 per cent college sentiment, renew friendships or support college; 16 per cent relaxation, to get away from business cares; and 13 per cent miscellaneous.

In a different educational context, that of listening groups for the Canadian Farm Radio Forum, Nicol's (23) extensive survey revealed the following motives for joining: 70 per cent neighborliness, community spirit; 56 per cent educational advantages; 14 per cent better understanding of farm problems; 22 per cent help to strengthen unity of farmers; 11 per cent, to present farmers' point of view to government; and 10 per cent, enjoy discussion; an average of nearly two stated motives per participant.

Flood and Crossland (6) asked adult students in Science and Psychology extension courses in Britain, to check their chief motive and any secondary motives for participation. It was found that the motives were mixed and varied, though only slightly, by school subject and by age and sex for each course. The chief motive for science study was "to under-

stand the present world" with the implication that science is necessary for this, and the main motive for psychology was "to understand other people." In both cases vocational motives were strong, though more so for science and for men. Practical, nonvocational motives were especially strong for psychology students.

Styler (30) reviewed Flood and Crossland's study and other British studies of adult student motivations and drew the following conclusions from, as he points out, "the limited research in this field:"

1. In social and political subjects and in natural sciences, the chief motive is interest in the world in which student lives.

2. In psychology, Flood and Crossland's conclusions are generally true, but the present interest in social psychology relates the motives of many psychology students with those in the social and political group.

3. In appreciation of music courses, the chief motive is prior interest.

4. The desire for additional education is a very important motive, and may be considered a result of the general advance in educational attainment.

5. Vocational motives appear to be more powerful in the natural sciences than in any other subject.

6. "Personal" motives are much more powerful than are "social" motives, i. e. the desire to improve society.

Problem Defined When attending professional meetings, the writer of this study has heard several adult educators elucidate on the subject of adult motivation. The comment often heard is that many adults who seek a degree are less vocationally motivated than youngsters. They want to learn for learning's sake, to master the academic life as they have mastered the business life.

While it is true that they soak up education like a sponge, absorbing what is broadly liberal, rather than professional, with avidity, sincerity, initiative, persistence, and even insatiability; this author believes that most adult learners are dissatisfied with their occupations. Therefore, it would appear that adult learners are more vocationally motivated--they want to feel vocationally secure, having the freedom of greater vocational choice.

Their complaints concerning college requirements are that they are made to study in elementary fashion what they have already learned through life experience. They state that they are slowed down in their studies by needless repetition and unnecessary spelling out; that they could proceed faster than younger adults, with less need of the prodding devices and leaning posts built into the tradition-

al curriculum. At their advanced age, it is important for them to conserve time. They have little of it to waste, and they are rightfully impatient with protracted, time-consuming digressions or repetitions.

The writer believes that most adult learners are unhappy with their present vocational situation, and that college attendance is a means of occupational advancement. It is believed that the majority of adult evening students are motivated by and are interested in preparation for a type of job that they do not hold or to prepare for job or career advancement in their present occupations. The author also theorizes that other factors such as sex, age, previous college attendance, level of income of the adult evening student affects this vocational motivation factor.

The following null hypotheses are presented for testing these theories.

Null Hypotheses

1. There is no difference in preferences of one choice over another selected by adult students as reasons for enrolling in evening courses, or stated in another way, each of the following motivational choices are equally distributed among adult learners;
 - a. To become more familiar with the broader aspects of man's knowledge.

- b. To become more effective in my present job.
 - c. To supplement my high school education.
 - d. To supplement my college education
 - e. To build new friendships or enhance my social life.
 - f. To prepare for job or career advancement in my present occupation.
 - g. To develop a greater appreciation for the Arts.
 - h. To prepare for a type of job that I do not now hold.
 - i. To find or develop a new interest or hobby.
 - j. To increase my understanding of life and living in today's world.
 - k. To stimulate personal development.
 - l. Other (specified by student).
2. There is no difference among the employed and unemployed as to motivational choice for enrolling in evening college credit courses.
 3. There is no difference between male and female students as to motivational choices for enrolling in evening college courses for credit.
 4. There is no difference in age group as to the reason for enrolling in evening college courses for credit.

5. There is no difference in motivational choices selected by adult learners who have had previous college experience.
6. There is no difference in choices selected for attending evening college classes by level of income of the adult student.

CHAPTER II

RELATED LITERATURE

Literature on Motivation

Research in motivation has been conspicuously lacking in the field of adult education. Especially when compared with the complexity of adult motivation, there has been comparatively little research relating motivation to participation of adults. For this reason, studies toward the periphery of the topic have been included in this chapter.

Perhaps the most comprehensive survey of adult student motivations and their relation to social characteristics was made by Nicholson (22). He presented a questionnaire containing a checklist of 30 possible reasons for attending adult education classes and eliciting information about the students' sex, age, marital status, veteran status, childhood background (rural-urban), income, previous formal schooling and present type of schooling to 5,211 students in all types of adult education; the majority were in part time classes and were taking liberal arts subjects. Nicholson found that there were usually several motives with one or

more dominant, and that most people had some specific educational motive. The most significant variables were sex and amount of formal schooling. If these were similar for several people, their motives tended to be similar. Vocational motives were dominant at ages 20-40, and for married men, separated or divorced women, and for people planning on occupational change. Intellectual-cultural motives were highest for women, single men, and people with previous higher education.

A study by S. R. Deane (4) related stated principal motivations not only to social characteristics of the students, but also to their persistence in the course and their general life orientations. In terms of these variables, he compared three different types of programs--Great Books, college credit, and non-credit evening courses. Deane found great variations among the programs both in terms of social characteristics and reasons for participation. Those in college credit courses were most interested in the practical aspects of their school work and enjoyed it; they liked competitive activities and sought vocational success and financial security as lifetime goals. By way of contrast, those in the Great Books program, a slightly older age

group, sought cultural broadening with no relation to their vocational interests; they felt dislike of competitive activities, and reported greater interest and activity in community affairs as a result of the courses. In general, Deane found that the purpose for entering courses correlated with dropout rates, with vocational reasons most effective for continuance and completion.

Thompson (35) conducted a study of ten institutions of higher learning located geographically throughout the United States, representing all sections of the country. He used a questionnaire to sample university extension students. He reported findings that adults have four general purposes for attending extension classes.

These general purposes were:

1. Remedial-- to correct a defect in their past training and to learn new skills and ideas which have made obsolete old ideas and methods.
2. Complementary--to make up or supply a deficiency in their training and education.
3. Supplementary--to add to what they have learned previously.
4. Cultural--to satisfy intellectual curiosity and to enrich all phases of their daily life.

In conclusion, Thompson stated that in general adult

education motives are for self-improvement or for self-satisfaction.

In a study dealing with the reasons why adults attend school, which sampled approximately five thousand adults from various adult education programs, Nicholson (22) found that:

1. Students had one or more dominant motives for attendance. Few were attending because of a single aim.
2. Almost all of the adults had specific purposes they hoped to satisfy by attending school.
3. Men and women differed widely in motivation.
4. Men had Intellectual-Cultural and Economic-Occupational motivations about equally. Women selected Intellectual-Cultural objectives more frequently than Economic-Occupational.
5. Among thirty reasons, 66 percent of first, second and third reasons were from the Economic-Occupational area.
6. Educational motives of adults differed among various age levels. Vocational objectives appealed more to persons twenty to forty than to younger or older individuals. Older students were more interested in cultural and recreational purposes.
7. Marital status was a factor of considerable influence on educational purposes (within any age level).
8. Occupational situation was a major factor in determining reasons. Employed and unemployed men differed more than employed and unemployed women indicating that employment is a more

decisive factor influencing school attendance in men than women. Individuals of the same sex employed in common occupational areas tended to resemble each other in the reasons for attending and tended to differ with persons in other occupational areas as to reason. The more unlike the area, the greater the difference in educational objectives.

9. A higher percentage of men between the ages of thirty-one and thirty-five are attending to prepare for a new position or job than was the case in other age levels.
10. Persons in technical occupations more frequently than in non-technical occupations believed that studies would make them more secure in their positions.
11. Belief that schooling is essential to success was held almost universally by those preparing for vocational life.
12. Persons of the same sex and similar formal educational attainment tended to resemble each other in motives for attendance. The greater the difference in years of schooling, the greater was the variance in objectives.
13. Single and divorced men and married women were interested in consumer education.
14. Married women attended for mental stimulation more than for other reasons.
15. Education as leisure time activity appealed more to employed than unemployed persons.
16. Many were interested in degrees and diplomas, more by men than women, younger men than older, and older women than younger.

17. Improvement of social skills was mentioned often, but seldom as one of the first three reasons.
18. Educational reasons of veterans and non-veterans were similar.
19. More single men were preparing to enter college than men in other marital categories.

In a study of student opinion and attitude conducted at the University of Louisville (17) students were asked to indicate the most important reason out of four which motivated them to attend. The four reasons listed were:

1. I am attending mainly for cultural improvement.
2. I am attending to add to my technical knowledge.
3. I am attending because I have always wanted a college education and did not have an earlier opportunity to enroll in college-level courses.
4. I am attending mainly for the social life and experience here.

There was no response to reason four. The tabulation of students responding to the remaining three reasons on the basis of sex, age, academic division of the university, and classification as to class level is listed in Table 1.

TABLE 1

DISTRIBUTION OF REASON FOR ATTENDING, BY SEX, AGE,
DIVISION AND CLASSIFICATION OF ADULT STUDENTS
AT THE UNIVERSITY OF LOUISVILLE

Factor		Cultural Improvement Per cent	Technical Knowledge Per cent	College Education Per cent
Sex	Male	9.6	50.4	40.0
	Female	24.1	43.3	32.6
Age	18-29	14.4	53.0	32.3
	30-39	8.2	45.7	46.1
	40-49	17.9	47.8	34.3
	50-up	30.0	20.0	30.0
Division	Soc. Sciences	14.3	40.6	45.1
	Humanities	25.5	29.8	44.7
	Nat. Science	5.3	62.6	32.1
	Bus. Admin.	6.0	30.2	43.8
Class.	Freshman	11.0	35.2	53.8
	Sophomore	6.6	43.7	49.7
	Junior	7.6	48.4	44.0
	Senior	9.8	52.1	38.1
	Graduate	10.7	89.3	0.0
	Non-degree	23.3	52.9	23.8

On the basis of the data presented in Table 1, the following generalizations were made: -

1. There was a tendency for women to be more motivated by cultural improvement than men.
2. Adults under thirty placed a somewhat greater emphasis on technical knowledge and adults over fifty were more interested in cultural improve-

ment as a reason for attendance.

3. Students who enrolled in the humanities tended to do so for cultural improvement while students in the natural sciences tended to do so for technical knowledge.
4. Non-degree students tended to attend for cultural improvement more often than degree students, while graduate degree candidates attended more often for technical knowledge than did other degree or non-degree students.
5. To obtain a college education, as a reason for attendance, failed to differentiate groups appreciably, possibly because of the general nature of the wording.

Wilson (39) conducted a study which tried to assess a program of community discussions in a college community.

These discussions were focused on general policy issues of concern to community leaders. The variables included in the study were participation, sex, academic level, field of study, academic standing, armed services experiences and marital status.

In so far as attendance at community discussions is an index of participation, the study concluded that the program drew its greatest support from females, young (single) non-veterans, and students in the social science area. In contrast, those making the most numerous contributions were upperclassmen, males, veterans, married students and those

majoring in engineering, the physical sciences, and business administration. This differential may be related to the time-space orientation, differing sex roles, time pressures, and differing professional and vocational pressures reflected in higher education.

Participants were characterized by higher academic records and competence than non-participants. The fact that participants scored higher in social service interests on the Kuder Preference Record ties in with the high level participation of social science majors. These facts taken with the differentials in academic aptitude might indicate a finer appreciation of the ideological implications of broad based participation in the formation of policy.

Kuhlen and Johnson (16) attempted to determine the change of dominant motivations with age by means of a question eliciting subjective statements of goals. The sample consisted of 467 single women, 280 married women and 218 married men, age 20-65, all of whom were teachers. The replies to the question, "What would you most like to be doing ten years from now?" were grouped into categories of: same job, remain in education but different job or promotion, different field of work, retired with no plans, retired with

plans, get married and have family, be a housewife, and "no answer." Analysis of the replies by five-year age intervals showed significant changes in goal orientations. The generality of these findings would, of course, have to be established and their direct implications for particular adult education programs investigated, but they do indicate broad age differences in motivations within which any educational program may be meaningful for the individual. It was found that the goal of marriage for single women in the 20's declines by the 30's, and the desire for vocational adjustment becomes dominant. Married women who are working show a greater desire to be housewives in the 20's and their vocational goals are secondary compared to those of single women. Married men are clearly vocationally oriented and through their late 40's put an emphasis on vocational advancement; they showed some evidence of vocational restlessness by desiring a different job or a different field in their late 30's and 40's. Plans or thoughts of retirement began for all groups in the 40's.

In a survey of the evening division student body at the University of Miami, students were asked to indicate their objective in attending classes (34). The reasons and

corresponding percentages of the students who responded to the questionnaires are listed in Table 2.

TABLE 2
DISTRIBUTION OF REASON FOR ATTENDANCE OF ADULT
STUDENTS AT UNIVERSITY OF MIAMI

Reason	Per cent
To obtain a college degree	69.6
Training for job advancement	20.2
Cultural interests	5.6
Other (recreational and use of leisure time)	4.6

In a study dealing with socio-economic circumstances and adult participation in several types of adult education programs, Kaplan (15) began with the assumption that the majority of men and women have the capacity for learning and for the developing of new cultural and educational interests. The findings of Kaplan's study reveal that:

1. Educational and cultural agencies serve but a small percent of the population of adults.
2. The amount of previous education is the strongest single factor determining participation.

3. There is evidence of widespread interest in educational activities if made readily accessible.
4. Educational programs for adults must be directed toward the interests and the needs of the persons they are intended to serve.

In a study conducted at the University of Minnesota (33), it was found that many adult college students indicated that they attended for more than one reason. The results of this inquiry are listed in Table 3.

TABLE 3
DISTRIBUTION OF REASONS FOR ATTENDANCE OF ADULT
STUDENTS AT THE UNIVERSITY OF MINNESOTA

Reason	Percent
Working for a certificate	21
Working for a degree	32
In connection with job	48
To fill or enrich leisure time	30
Special interest	31
Other answers	12

Literature on the Vocational Choice Process

It is relevant to this study to review the literature on the theoretical underpinnings of the vocational choice process. The significant values of the research that has

been done on the development of vocational choice is that such research provides one means of studying the choice process as it applies to the total life of the individual. With this relationship in mind let us now turn to an overview of the vocational choice process.

Bordin's recent analysis of the major current approaches to the problem of occupational choice serves as a helpful point for purposes of classification and discussion.

Ginzberg, Super, Roe, Tiedeman and Holland are generally accepted as the major contributors to this area of inquiry and their findings will be compared relative to personality theory, structural characteristics, and assumptions regarding the process of choice.

Bordin (2) believes that strides have been made during the past decade toward a theory of vocational development which incorporates the early work in the field and serves to link the selection of occupational roles to personality organization. Although he recognizes the controversy over vocational choice versus development he states that it is largely a question of research strategy rather than differences over whether development is continuous. All concerned see vocational choice as a specific subgoal in a continuous

process, and all agree that this particular choice is not synonymous with the end of the process.

In terms of research approach, Bordin (2) thinks that Super and Tiedeman and their co-workers stress vocational development and address themselves to the prediction of successive choices, or patterns of choices. On the other hand, Roe and Holland stress vocational choice in the sense of predicting the occupational role that the person is assuming at a given point in time. Bordin sees himself as being more in agreement with the position of Roe and Holland.

Bordin suggests that approaches toward occupational life take either one or both views of the individual, the structural and the developmental. From the developmental standpoint, Tiedeman (36) and Super (32) use the term "self" and refer to the process of acquiring self-knowledge and implementing it. Ginzberg uses a developmental perspective with emphasis on a single decision point.

Ginzberg, et al. (9) see the individual as passing through successive developmental stages as follows:

1. Fantasy period--the child believes that he can be what he wishes to be and considers an occupation in terms of his wish to be an adult. He cannot assess his capacities in light of the opportunities or limitations of reality.

2. Tentative period--the child recognizes the problem of deciding on a future occupation. The answer must come in relation to future satisfactions rather than current satisfactions. The translation is in terms of subjective factors: interests, capacities, and values. Resulting choices are tentative pending additional experience.

3. Realistic period--the adolescent is strongly concerned about reality. He realizes that a compromise must be made between what he wants and the opportunities that are available. This is accomplished through exploring occupational aspects followed by a crystallization process resulting in a goal and ending in training or experience in a field of choice.

Thus, actual occupational choice takes place over a period of six to ten years. Each decision in adolescence is influenced by past experience, and each decision made has an influence on future decisions. The crystallization of occupational choice involves compromise since it incorporates both subjective individual aspects and the opportunities of reality.

Super (32) has viewed vocational development as a process of synthesis rather than compromise, and a person's inter personal experiences have a direct relationship on the development of the self. His most recent work deals with the issue of career prediction as contrasted with occupational prediction.

Relative to the course and cycle of the working life, Super (32) approached career patterns from the standpoint of life stages as they contributed to the development of the self-concept. These stages include:

1. Growth stage--conception to about fourteen years of age.

2. Exploration State--15 to 25 years of age. This is the adolescent period of exploration and is the period of the development of the self-concept.

3. Establishment Stage--25 to 45 years of age. New roles are established and the self-concept is modified and implemented

4. Maintenance Stage--45 to 65 years of age. This stage emphasizes preserving or being bothered by one's self-concept.

5. Decline Stage--65 years of age and beyond. This stage is marked by decline in physical and career considerations, and the adjustment to a "new" self as a result.

Super (32) has been concerned also about the dynamics of vocational development in terms of the factors that determine the shape of the career pattern. These factors include the psychological, economic, social and even chance factors as they are expressed in aptitudes, interests, personality, family, economic and other specific variables. He emphasizes that these factors must be explored within the previously mentioned stages of life development as follows:

1. Exploration--Development of preferences, training and entry into the occupation.

2. Establishment and Maintenance--Success on the job, satisfaction in work, advancement in the occupation are the areas of interest.

3. Decline--Success and satisfaction in leaving the occupation.

The synthesizing process has been stressed by Super in terms of the interaction of these various factors in the course of development. This process involves the learning process and role behavior including role taking and role playing.

More recently Super (31) has turned to an interest in career prediction as contrasted with occupational prediction. An occupational model is the study of a static entity, about the characteristics of people doing a particular type of work, with a certain degree of success, at a certain point in time. In the career model the concern is with the sequence of positions, jobs, and occupations in the life of one person or of groups of persons with certain characteristics in common.

Tiedeman (36) and his co-workers have emphasized the "self" as the central concern in the development of vocational identity. Here the process of acquiring self-knowledge

assists in developing an identity which provides motivation for implementing occupational choice.

Very recently Tiedeman and his co-workers (6) contributed some thinking relative to the self-concept in career development. They develop the point of view that a person can view not only life as process but self as process, so that the focus changes from one self-concept to the process of self-conceptualizing.

From the more differentiated structural approach, occupations are grouped according to personal characteristics or activities. Holland and Roe fit into this broad category according to Bordin (2).

Holland (14) classifies the occupational environments into six categories and the modal personal orientations into six categories. Both categories utilize the same terms which are: motoric, intellectual, supportive, conforming, persuasive, and esthetic. He introduces the role of the developmental hierarchy as a means of ordering the individual preferences for the six major environments. This hierarchy is analogous to the effects of the psycho-sexual history, but no cues to the decisive factors in development are given. In addition, he gives the external influences

that effect the operation of the developmental hierarchy. These include vocational opportunities, the social pressures, and the time at which social influences occur. Thus, the life style and the interaction of social factors have an influence on the vocational choice.

More recently Holland (13) has made some changes in his theoretical approach and terminology. He seems to be placing more emphasis on self-concept theory as evidenced by such statements as "In one sense, choosing a vocation means finding people who are like oneself." He has studied interests or personal orientations in relation to achievement, stability of choice of major and of occupation, and age at time of choice preference. It would appear that he is altering his theory as his research findings give direction for change.

Roe's (26) classification of occupations stresses the activities of primary focus in the occupation and follows the findings of factor analysis of interest inventories. She utilizes Maslow's hierarchial classification of needs in her theory of the early determinants of vocational choice. She feels that there is some difference in the age when these needs or drives start to function. Her theory has

one personal dimension--that of the degree of orientation toward persons and non-persons. In addition, she indicates how these formative experiences could influence the child's orientation toward persons--the warmth or coldness of parental attitudes. It should be noted that research directed toward her theory about the influence of parental attitudes on vocational choice has been negative. (Grigg, 10; Hagen, 11; Utton, 37). Bordin (2) is of the opinion that some differences do exist and that there is a "need for much greater specificity in examining parental attitudes or other formative experiences."

Bordin's new framework for vocational commitment had its beginnings in three previous studies dealing with seven occupations. (Segal, 28; Nachmann, 21; Galinsky, 7). Each study applied psychoanalytic assumptions regarding personality development to the explanation of the behavior observed in detailed examination of the activities in an occupation. Within their framework, they have attempted to set up a series of dimensions (needs, motivations, impulses, activities) which could account for all of the major gratifications which work can offer--which would make it possible to describe any occupation in terms of the

relative strengths and the particular modifications of these component dimensions. Such a theoretical structure makes it possible to describe both jobs and people with the same set of terms. Therefore, such issues as success, satisfaction, and productivity may be predicted on the basis of the degree of congruence between the patterning of the two.

This overview of the work of major contributors to the development of vocational choice or development theory serves as a means of studying one type of choice process as it applies to all of life. The process of choosing an occupation is a process of establishing an identity and this is one of the main reasons why counselors should not abrogate their historical concern with vocational guidance.

Summary of Findings of Related Literature On the basis of the literature cited, it appears desirable to draw some generalizations. These appear to be:

1. A number of factors interact to cause adult motivation. These include age-related differences in cultural stimulation and expectation, the degree to which satisfaction or chronic frustration of certain major motives over time paves the way for the emergence of other motives.

2. The postulation of a need for growth-expansion integrates commonly observed goals and interests. One

notes shifts in goals and interests from career and family, to community interests, to identification with children's success, to religious and philosophical interests. In general, although growth-expansion motives seem important throughout life, their satisfaction is by less direct and more vicarious means in older years. As age increases, there appears to be less personal investment in life and in the satisfaction of needs.

3. Technological advances which have created more leisure time and fewer opportunities for satisfaction in work have resulted in important opportunities for adult education.

4. In early years of adult life, education is used in the service of various expansion needs, but in later years adult education may well become a basic source of need satisfaction.

CHAPTER III

METHODOLOGY

The Sample Adults enrolled as part time students in college credit courses scheduled during the evening hours by University College and meeting on the Drake University campus were included in this study for the purpose of testing the null hypotheses that:

1. There is no difference in preference to motivational choices selected by adult students as reasons for enrolling in evening college courses for credit.
2. There is no difference among the employed and unemployed as to motivation for enrolling in evening courses for credit.
3. There is no difference between males and females as to motivation for enrolling in evening college credit courses.
4. There is no difference in age groups as to reasons for enrolling.
5. There is no difference in motivational choices selected by adult learners with previous

college attendance.

6. There is no difference in choices selected for attending evening college by level of income of the adult student.

The study did not include those full-time regular day students enrolled in an evening class. Since the regular full-time day student does not fit the criteria and purposes for this study, inclusion of data from this source would seriously contaminate the results.

Neither were part-time adult students enrolled in evening credit courses which meet off the Drake University campus included in the study. Almost one hundred per cent of students enrolled in Drake extension classes are classroom teachers who are seeking teacher certification, or working toward certificate renewal. Since this is a highly select group, inclusion of data from this source would have presented a serious response bias.

University College of Drake University In 1945, the Board of Trustees, upon the recommendation of the President, met together to establish a new college as an integral part of Drake University. Many months were devoted to develop-

ing the framework for an adult education program, and in the spring of 1946, the Community College of Drake University made its debut. The name was changed to University College in 1961 because the name community college had come to be associated with the public junior college.

In the ever expanding need for continuing education in an industrial, scientific, and changing society, the urgency for an urban university to provide responsible leadership is self-evident. Drake University has chosen to exercise this leadership in many ways and has delegated selected portions of this responsibility to the University College. This delegation gave the college responsibility for the following functions:

1. To enhance the educational competencies of the adult citizens of the greater Des Moines Community area, and wherever in the State of Iowa this can be performed at a level of excellence commensurate with University standards and without detriment to this University, or any other institution of higher learning in the state.

- a. Formal, credit courses are offered that permit students to attain certificates attesting to fulfillment of requirements in special areas and degrees.

- b. Undergraduate, and graduate courses are offered to qualified students on a credit, audit, and non-credit basis.

2. To enrich the cultural environment in which the adults of the greater Des Moines area live.

a. Non-credit, non-degree programs are offered which emphasize the aesthetic and humanitarian aspects of our civilization.

b. Conferences, institutes, seminars, and other forms of short-term programs are developed for alumni of the University and the general public.

3. To influence the social, political, and economic climate of the greater Des Moines Community areas, and all other areas of the region where the resources of the University are available.

Research Design A questionnaire was devised in order to obtain the information needed to analyze motivational, personal, social and economic factors characterizing adult learners enrolled in evening courses for college credit at Drake University. The first draft of the questionnaire was administered to a group of public school superintendents and principals enrolled in a post-graduate course in educational research. After completion, the trial respondents commented on the meaning of their responses and as to the clarity and ease of completion of the instrument. The questionnaire was revised to incorporate the suggested improvements made by this group.

The adult student was asked to consider twenty-nine

questions. The answers provided information as to sex, age, marital status, academic achievement, high school curriculum, previous college attendance, certificates or degrees earned, semesters of previous evening college attendance, number of hours usually taken in evening classes, degree plans, counseling services, motivation for attending evening classes, significance of course work to motivational choice, employment history and vocational aspiration, socio-economic data, residency, and the student's opinion of the effectiveness of evening college. (See Appendix A)

Consideration for arrangement of the information on the questionnaire was given to clarity and ease of responding. Consideration was also given to efficiency in transferring the information to I.B.M. cards for expedient analysis of the data.

Source of Data The sources of data describing the adult learner consisted of information gathered from:

1. Responses of 1567 adult evening college students to a questionnaire distributed to all classrooms during the week of December 14, 1964 and administered by the instructor. (See Appendix A).
2. A Dean's Card which contained enrollment and

registration information for all students completing the questionnaire. (See Appendix A).

3. Permanent record cards filed in the office of the dean of University College. This record contained the total attempted hours and grade points for each of the subjects. (See Appendix A).

Analysis of Data Data from the questionnaire, the student registration card, and the student permanent record card were punched into IBM cards. IBM electronic computers were used to tabulate and summarize the data for analysis.

The adult part-time student was asked to choose the most important reason for attending evening college classes from the following list:

1. To become familiar with the broader aspects of man's knowledge.
2. To become more effective in my present job.
3. To supplement my high school education.
4. To supplement my college education.
5. To build new friendships or enhance my social life.
6. To prepare for job or career advancement in

my present occupation.

7. To develop a greater appreciation for the Arts (such as music, literature, fine arts, etc.).

8. To prepare for a type of job that I do not now hold.

9. To find or develop a new interest or hobby.

10. To increase my understanding of life and living in today's world.

11. To stimulate personal development.

12. Other (specified by student).

Chi-square χ^2 was used to test the null hypothesis that there is no difference in preferences of one choice over another selected by adult students as reasons for enrolling in evening classes, or stated in another way, each of the above motivational choices are equally distributed among adult learners.

The chi-square test represents a useful method of comparing experimentally obtained results with those to be expected theoretically. The differences between observed and expected frequencies are squared and divided by the expected number in each case, and the sum of these quotients is χ^2 . The more closely the observed results

approximate to the expected, the smaller the chi square and the closer the agreement between observed data and the hypothesis being tested. Contrariwise, the larger the chi square the greater the probability of a real divergence of experimentally observed from expected results. To evaluate chi square, one enters the chi square table (adapted from R. A. Fisher's statistical method for research workers) with the computed value of chi square and the appropriate number of degrees of freedom. The number of $df = (r-1)(c-1)$ where r is the number of rows and c the number of columns in which the data are tabulated. From the chi square table p is read, the probability that the obtained χ^2 is significant.

Question 18 on the student questionnaire asked if the student were currently employed. In order to test the null hypothesis that there is no difference among the employed and unemployed as to motivational choice for enrolling in evening college credit courses, chi square was applied to the data from question 18, and the motivational choices made by the student.

A test of chi square was applied to data on sex and motivational choice in order to compare experimentally the

obtained results with those to be expected theoretically on the null hypothesis that there is no difference between male and female students as to motivational choices for enrolling in evening college courses for credit.

Data received from the student as to age was compared to the age recorded on the permanent record. The percentage of students in each age group was computed and reported. The age group data and information on motivational choice were used to apply the test of chi square for testing the null hypothesis that there is no difference in age group as to the reason for enrolling in evening college courses for credit.

In order to test the null hypothesis that there is no difference in motivational choices selected by adult learners who have had previous college experience, a test of chi square was applied to the data.

The students were asked on an optional basis to check their level of income. Chi square was applied to this data to test the null hypothesis that there is no difference in choices selected for attending evening college classes by level of income of the adult student.

Academic success for this study is defined as earned

grade point average. The total attempted hours were computed for each student in each of the twelve motivational categories. Each student's grade point total was summed for each of the twelve motivational categories. The grade point average was computed for each motivational choice by dividing the total grade points by the total attempted hours. By using the attempted hours and grade points for each student in each of the categories, an unbiased grade point average was obtained. Chi square was used to test no difference in academic success by motivational choice.

Descriptive data as to marital status, high school curriculum, academic achievement, degree plans and number of hours usually taken in evening college classes was included in the findings. Additional information included in the study described the amount of counseling or advice sought through the evening college counseling services; and the student's opinion of the effectiveness of University College at Drake University was summarized.

CHAPTER IV

FINDINGS

Results of Questionnaire Data

The first section of this chapter deals with the descriptive data obtained on adult learners from replies to a questionnaire. In the latter part of the chapter, an attempt has been made to analyze motivation--vocational, sociocultural, and other factors characterizing adult learners.

The first question on the questionnaire asked the adult student to identify his sex. Of the 1,567 students who completed questionnaires, there were 885 or 56.5 per cent men and 682 or 43.5 per cent women. Table 4 shows this relationship more clearly.

TABLE 4

DISTRIBUTION BY SEX OF ADULTS COMPLETING
QUESTIONNAIRES IN DRAKE UNIVERSITY EVENING COURSES

Sex	Number	Per cent
Male	885	56.5
Female	682	43.5
Total	1,567	100.0

A chi square value of 26.298 was obtained from this data.¹ This value was significant at the .01 level of probability with one degree of freedom ($P_{.01} = 6.635$), and means that there were significantly more male students included in the study than female students.

Age ranged from 17 to 64 with a mean age of 30.18. The median age was 27 and the mode was at 22 years of age. Table 5 is presented to show the number of students in five age groupings and the per cent of the total within each group.

TABLE 5

DISTRIBUTION BY AGE OF ADULTS COMPLETING
QUESTIONNAIRES IN DRAKE UNIVERSITY EVENING COURSES

Age Group	Number	Per cent
Under 20	132	8.4
20 - 29	782	49.9
30 - 39	354	22.6
40 - 49	207	13.2
Over 50	92	5.9
Total	1,567	100.0

¹The expected proportions used here and throughout the inquiry in calculating chi square values are assumed from a hypothetical population over the last five years at Drake University.

The computed chi-square value of 1,003.760 for the age groupings is significant at the .01 level of probability with four degrees of freedom ($P_{.01} = 13.277$). There were significantly more adults in the 20 - 29 and 30 - 39 age ranges, and significantly fewer adults in the under 20, 40 - 49, and over 50 age ranges.

Each student completing the questionnaire was asked to check his marital status. Table 6 presents the tabulation of students responding to this question.

TABLE 6
DISTRIBUTION BY MARITAL STATUS OF ADULTS
COMPLETING QUESTIONNAIRES IN DRAKE UNIVERSITY
EVENING COURSES

Marital Status	Number	Per cent
Single	477	30.4
Married	1,021	65.2
Widow	20	1.3
Widower	0	0.0
Divorced	46	2.9
No reply	3	0.2
Total	1,567	100.0

It is of interest to note that three students refused to respond to this question. Also of interest is the fact that no widowers were enrolled in evening courses. Figure 1 is presented in order to graphically portray the distribution by marital status.

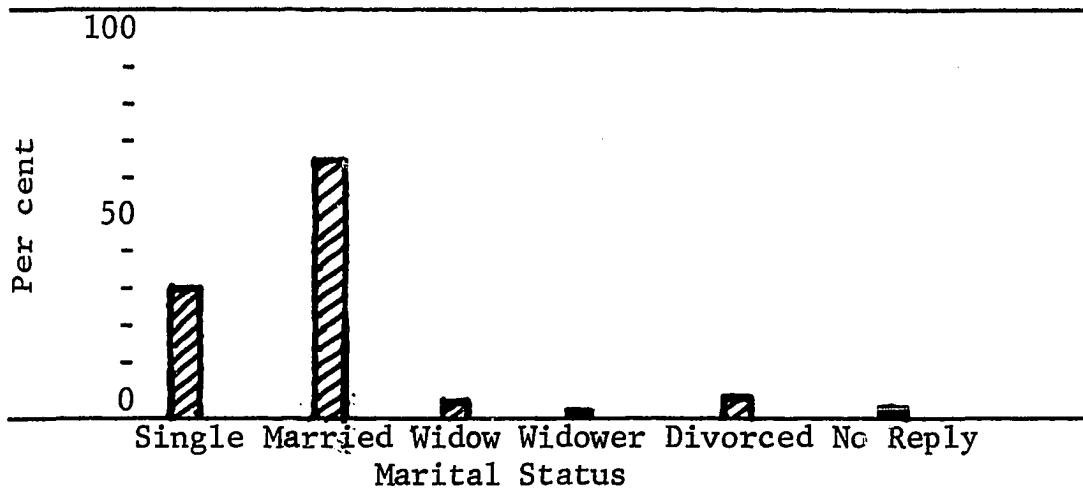


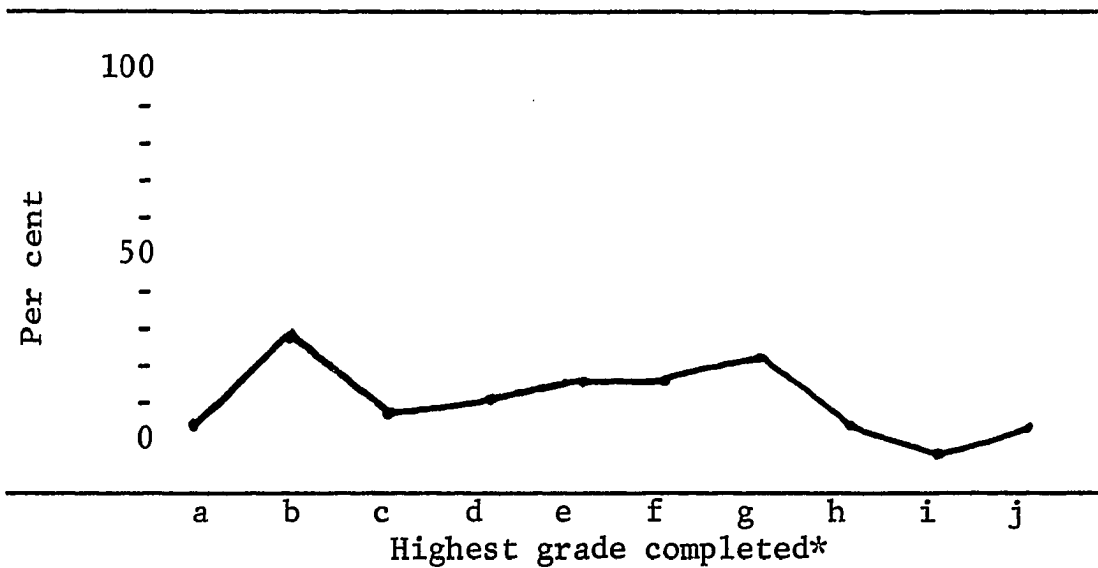
Figure 1. Histogram of Distribution by Marital Status

Item four on the questionnaire asked the student to check the highest grade he had completed in school. Table 7 presents this distribution, and Figure 2 graphically portrays the results.

TABLE 7

DISTRIBUTION BY HIGHEST GRADE COMPLETED
OF THE ADULT EVENING COLLEGE STUDENTS

Highest Grade Completed	Number	Per cent
Eleventh grade or less	10	0.6
Twelfth grade (H.S. graduate)	402	25.7
Technical or vocational school	82	5.2
One year college	183	11.7
Two years college	225	14.4
Three years college	251	16.0
College graduate	338	21.6
Masters Degree	35	2.2
Doctors Degree	5	0.3
Other	36	2.3
Total	1,567	100.0



*Legend: a, eleventh grade or less; b, twelfth grade; c, technical or vocational school; d, one year college; e, two years college; f, three years college; g, college graduate; h, masters degree; i, doctors degree; j, other.

Figure 2. Analysis of highest grade completed.

The results of the data obtained from question 5, in what field was the major part of your high school training accrued, are reported in Table 8. These results indicate that 39.4 per cent of the students completing questionnaires were enrolled in a college preparatory curriculum in high school. The next largest group which included 36.5 per cent of the adults, followed a high school general curriculum. The remaining 24 per cent were enrolled in business and secretarial, technical or vocational, and in unspecified curricula.

TABLE 8

DISTRIBUTION OF HIGH SCHOOL CURRICULA
OF ADULTS ENROLLED IN EVENING COLLEGE COURSES

High School Curriculum	Number	Per cent
Business and secretarial	204	13.0
College preparatory	617	39.4
Technical or vocational	107	6.8
General	572	36.5
Other	51	3.3
No reply	16	1.0
Total	1,567	100.0

Eight hundred and seventy-four or 55.8 per cent had not earned any certificates or degrees while 180 or 11.5 per cent checked that they had earned some type of college certificate. Bachelor degree recipients numbered 335 or 33.5 per cent of the total, and those who had received masters degrees numbered 25 or 1.6 per cent. Five persons held doctors degrees, 63 adults checked the 'other' category, and 84 did not reply to the question.

The subjects were asked to check the total number of semesters they had attended evening college classes, whether at Drake University or elsewhere, including the semester in which they completed the questionnaire. The majority of students were enrolled for their first semester. Table 9 shows this distribution.

TABLE 9
DISTRIBUTION OF THE NUMBER OF SEMESTERS OF
EVENING COLLEGE CLASSES ATTENDED

Semesters attended	Number	Per cent
One semester	564	36.0
Two semesters	226	14.4
Three semesters	223	14.2
Four semesters	97	6.2
Five semesters	88	5.6
Six to ten semesters	187	11.9
Eleven to fifteen semesters	67	4.3
Sixteen to twenty semesters	24	1.5
Twenty-one to twenty-five	17	1.2
More than twenty-five	74	4.7
Total	1,567	100.0

The distribution of the number of credit hours the student generally takes in evening classes each semester is revealed in Table 10. This table also includes the percentage of each group compared to the total included in the study. By observing this table, it can be seen that the majority of adults enroll for three semester hours of credit.

TABLE 10
DISTRIBUTION OF THE CREDIT HOURS TAKEN IN EVENING CLASSES

Semester Hours Credit	Number	Per cent
Two	108	6.9
Three	860	54.9
Four	47	3.0
Five	38	2.4
Six	336	21.4
Seven	27	1.7
Eight	12	0.8
Nine	51	3.3
Ten	2	0.1
More than ten	86	5.5
Total	1,567	100.0

Answering yes to the question, "Are you working toward a college degree?" were 1,035 or 66 per cent of the sample. Two hundred forty-nine said they were not working toward a college degree, while 283 were undecided as to their degree plans. These two groups represented 15.9 per cent and 18.1 per cent of the sample respectively.

When asked if they were familiar with the degree requirements in their area of interest, 1,020 answered that they were, while one-third or 547 replied that they did not know the degree requirements. These results are somewhat incongruous with the replies received on the item asking if the student had ever visited the University College for counseling or advice. Only 533 of the students stated they had sought out counseling. Of these, 369 asked for help before they enrolled, and 164 after they were registered. It is surprising to note that 1,034 or 66.0 per cent of the adults included in the study had not visited the University for advice or counseling. Of the number who had visited the University College office for advice, 262 reported that they had made only one visit. The number of visits ranged from one to twenty with the average number of visits being two.

Adults enrolled in evening college classes for credit were asked to check the one most important reason for attending University College at Drake. Table 11 presents the distribution of replies to this question.

TABLE 11

DISTRIBUTION OF MOST IMPORTANT REASONS FOR PARTICIPATION IN
COLLEGE EVENING COURSES

Most Important Reason	Number
To become more familiar with the broader aspects of man's knowledge	81
To become more effective in my present job	236
To supplement my high school education	36
To supplement my college education	210
To build new friendships or enhance my social life	1
To prepare for job or career advancement in my present occupation	431
To develop a greater appreciation for the Arts	10
To prepare for a type of job that I do not now hold	320
To find or develop a new interest or hobby.	8
To increase my understanding of life and living	49
To stimulate personal development	95
Other	91
Total	1,567

To become more effective in my present job, to prepare for job or career advancement in my present occupation, and to prepare for a type of job that I do not now hold were considered vocational oriented motives. The remaining items were classified as sociocultural. Observing the data presented in Table 11, one can see that 987 chose vocational motives and 580 were socioculturally motivated.

Item 16 on the questionnaire asked the student if he felt that the content of the courses taken in University College had helped him attain the goal specified as his most important reason for participating in evening courses. Table 12 presents this distribution.

TABLE 12

DISTRIBUTION OF DEGREE OF SUCCESS EVENING COURSES
AID ADULTS IN REACHING THEIR STATED GOALS

Degree of Help from Course Content	Number	Per cent
Very much	993	63.4
Moderately	387	24.7
Some	172	11.0
Very little	15	0.9
Total	1,567	100.0

On the item, who encouraged you to attend University College, 78 per cent indicated the decision was a self made one. It is of interest to note that only 6.3 per cent of the number completing questionnaires were influenced by their employer. Table 13 lists the complete distribution for this item.

TABLE 13

DISTRIBUTION BY SOURCE OF INFLUENCE TO ATTEND

Source of Influence	Number	Per cent
Self	1,223	78.0
Spouse	80	5.1
Father	16	1.0
Mother	20	1.3
Sister	6	0.4
Brother	9	0.6
Employer	98	6.3
Supervisor	18	1.1
High School teacher	7	0.4
Other (friend, admission counselsor)	90	5.8
Total	1,567	100.0

Of the 1,567 subjects, 1,404 were employed, 141 were unemployed, and 22 did not respond to the question. Each person was asked how many jobs he had held since leaving full-time school. The majority of subjects had held only one or two jobs since leaving school. This distribution is reported in Table 14.

TABLE 14
DISTRIBUTION BY JOBS HELD SINCE FULL TIME SCHOOL

Jobs Held Since Leaving School	Number	Per cent
None	51	3.3
One	566	36.1
Two	389	24.8
Three	268	17.1
Four	129	8.2
Five	73	4.7
Six or more	91	5.8
Total	1,567	100.0

Information from this table would indicate that there is a fair amount of stability in employment habits of the adults included in this study.

Twenty-eight of the subjects said they did not expect to be employed five years from now, while 151 claimed they expected to primarily be a homemaker. Only 201 said that they expected to have about the same job in five years as they did at the time of the study. Concurring with the vocational motivation theory, 1,051 indicated that they either expected to be in the same occupation but at a higher level, or that they expected to be in a different occupation in five years. Table 15 concisely presents this data.

TABLE 15
EXPECTED EMPLOYMENT IN FIVE YEARS

Job Expectation	Number	Per cent
I do not expect to be employed five years from now	28	1.8
I expect to be primarily a homemaker	151	9.6
I expect to have about the same job that I now have	201	12.8
I expect to be in the same occupation but at a higher level	707	45.1
I expect to be in a different occupation in five years	344	22.0
I can't even guess what I'll be doing	121	7.7
No reply	15	1.0

An optional item on the questionnaire asked for level of income. The distribution of income ranges is shown in Table 16.

TABLE 16
DISTRIBUTION OF LEVEL OF INCOME

Income Range	Number	Per cent
Less than \$4000	240	15.3
\$4000 - \$4499	115	7.3
\$4500 - \$4999	79	5.0
\$5000 - \$5499	122	7.8
\$5500 - \$5999	103	6.6
\$6000 - \$9999	462	29.5
\$10000 up	273	17.4
No reply	173	11.8

In checking the level of income, the adult learner was asked to include contributions from all members of his family, or his parents' income if he were a dependent. Almost half of the sample had incomes ranging from \$6,000. upward.

The sample consisted of 1,092 Des Moines residents and 467 who stated that they commuted. Eight students did not reply to this question. The average number of miles driven one way to classes was 32.5. The range of commuters travel was two miles to 175 miles, the median was 30, and the most frequent number of miles listed was 40. The students who traveled commuted a total of 15,883 miles one way to attend evening classes.

The last three questions on the questionnaire dealt with the students opinion of University College at Drake. A vast majority of the students said that the opportunity to attend college while employed was the most desirable feature of the college. Others stated that the variety of courses, proximity and availability, and convenient hours were the most desirable features.

There were 710 who made no reply to the least desirable feature of the University college. Answers with the most frequency to the least desirable feature question were tuition is too high, three hour class sessions are too long, and a lack of a variety of courses. When asked for suggestions for improvement, 950 made no reply; however, a frequent comment was, "do not change present format."

In summary, the findings revealed from the descriptive data gathered were:

1. More men than women enroll in college evening courses for credit.
2. The great majority of students enrolled in late afternoon or evening classes for college credit are married.
3. Almost 70 per cent completing the questionnaire have completed one or more years of college.
4. More than 75 per cent of the students were enrolled in a college preparatory curriculum or general curriculum.
5. More than 55 per cent of the students had not completed any formal program in college, while 45 per cent had completed a college certificate or degree program.
6. Seventy-four per cent of the students were repeaters in college attendance.
7. The greatest majority of the students, 93 per cent, generally carried three or more semester hours of credit per semester.
8. Sixty-six per cent of the students were working toward a college degree.
9. Sixty-five per cent were familiar with the degree requirements in the area of their interest.

10. Sixty-six per cent of the students had never visited the college for counseling or advice. Of the 34 per cent who had sought counseling, 369 sought help before they enrolled and 164 after enrollment.

11. The majority of students chose a vocational motive as the most important reason for attending University College.

12. More than 90 per cent of the students felt that the content of the courses taken in University College had helped them attain their goals.

13. Seventy-eight per cent were self motivated to attend evening classes.

14. More than 89 per cent of the students were gainfully employed.

15. Evidence of employment stability was found in that more than 63 per cent had held only one or two full time jobs since leaving school.

16. Concurring with the vocational motivation theory, 1,051 indicated that they either expected to be in the same occupation but at a higher level, or that they expected to be in a different occupation in five years.

17. Almost one-half of the sample had incomes ranging from \$6,000 upward.

18. More than sixty-nine per cent of those attending evening college classes were residents of Des Moines.

19. Those who traveled to attend University College classes indicated an average number of one way miles to be 32.5. The range of miles driven one way was two to 175.

20. The most desirable feature of University College was the opportunity that it provided students to attend college while employed.

21. The least desirable feature of University College most often mentioned was that tuition is too high. Seven hundred and ten students did not comment on this question.

22. Nine hundred and fifty students did not have suggestions for improving University College. The most frequent suggestion was do not change the present format.

Analysis of Motivation:

Vocational, Sociocultural, and Other Factors

One of the most important yet elusive characteristics of adult college students is the constellation of reasons they have for attending. This inquiry approached the issue of motivation by asking the student to select the most important reason from a check list as to why he was enrolled in evening college classes.

Motivational Choices As previously reported in this study, each student was asked to check the most important reason for enrolling in adult evening courses for college credit. The twelve choices in check list form were presented in order to test the null hypothesis that there is no difference in preferences of one choice over another selected by adult students as reasons for enrolling in evening courses. Only one subject checked item (e), to build new friendships or enhance my social life. In order to compute chi-square, this frequency was combined with item (i), to find or develop a new interest or hobby. The computed chi-square value from this frequency distribution was 1,351.0194 which is significant at the one per cent level of confidence with ten degrees of freedom. The null hypothesis is therefore rejected because of the substantial difference in preference of one choice over another.

Of the twelve choices presented, three were classified as vocational, and the remaining nine were considered sociocultural motives. The three vocational motives were, (1) to become more effective in my present job, (2) to prepare for job or career advancement in my present occupation, and (3) to prepare for a type of job that I do not

now hold. This classification is repeated for each of the analyses, and all chi-square calculations are presented in Appendix B.

Table 17 presents the data obtained from the check list of reasons for attending by the motivational classification analysis.

TABLE 17
ANALYSIS BY MOTIVE CLASSIFICATION

Motive Classification	Observed	Expected
Vocational	987	783.5
Sociocultural	580	783.5
Total (P.01 = 6.635; d.f. = 1)	1,567	1,567

The computed chi-square of 105.7109 (see Appendix B) was significant at the .01 level of probability with one degree of freedom. It can be concluded that there were significantly more adults attending evening courses for vocational reasons than for sociocultural motives, and substantiates the theory that the majority of adult evening students are motivated by and are interested in preparation

for a type of job that they do not hold or to prepare for job or career advancement in their present occupations.

Employment Table 18 presents the analysis of data on employment.

TABLE 18
EMPLOYMENT ANALYSIS

Category	Observed	Expected
Employed	1404	772.5
Unemployed	141	772.5
(P.01 = 6.635; d.f. = 1)		

From the calculated chi-square of 1,302.472 which was significant at the .01 level of probability with one degree of freedom, it can be concluded that significantly more adults were employed than unemployed. All 141 who are in the unemployed category listed themselves as housewives.

Employment by motivation In order to test the null hypothesis that there is no difference among the employed and unemployed as to motivational choice for enrolling in evening courses for credit, the data were analyzed according to the motivational classification and chi-square

applied. Table 19 presents this analysis.

TABLE 19
ANALYSIS OF EMPLOYMENT BY MOTIVATION

Classification	Employed	Unemployed	Total
Vocational	906	68	974
Sociocultural	498	73	571
Total	1,404	141	1,445
(P.01 = 6.635; d.f. = 1)			

The chi square obtained from this data was 74.443. Since this value was significant at the .01 level of probability, the null hypothesis was rejected. The adults who were employed were motivated vocationally, while the unemployed were socioculturally motivated to attend evening courses.

The Sex Factor The data on the distribution by sex are presented in Table 20. From this data, an analysis was made to determine the significance of the sex distribution. A chi square of 26.298, significant at the .01 level of probability, indicated that the greater number of male students enrolled in evening college classes as compared with female students was not a chance difference.

TABLE 20
ANALYSIS OF SEX DISTRIBUTION

Sex	Observed	Expected
Male	885	783.5
Female	682	783.5
(P.01 = 6.635; d.f. = 1)		

Sex by motivation The data were analyzed, and a chi-square test applied to test the null hypothesis that there is no difference between male and female students as to motivational choices for enrolling in evening college courses for credit. The data for the analysis of sex by motivation are presented in Table 21.

TABLE 21
ANALYSIS OF SEX BY MOTIVATION

Motivational Classification	Male	Female	Total
Vocational	597	390	987
Sociocultural	288	292	580
Total	885	682	1567
(P.01 = 6.635; d.f. = 1)			

The computed chi-square value of 17.436 was significant at the one per cent level of confidence with one degree of freedom. The null hypothesis that there is no difference between male and female students as to motivation to study in college evening classes was rejected. Men were significantly more vocationally motivated than women.

Age The analysis by age is presented in Table 22. This analysis, and the resulting chi-square indicates that significantly more students in the age group 20-29 enrolled.

TABLE 22
ANALYSIS BY AGE

	Under 20	20-29	30-39	40-49	Over 50
Observed	132	782	354	207	92
Expected	313.4	313.4	313.4	313.4	313.4
(P.01 = 13.277; d.f. = 4)					

The computed chi-square from this data was 1,003.760. This value was significant at the .01 level of probability with four degrees of freedom. (See Appendix B).

Age by motivation An age by motivation matrix was developed in order to test the null hypothesis that there

is no difference in age as to the reason for enrolling in evening college courses for credit. Table 23 shows this matrix.

TABLE 23
AGE BY MOTIVATION MATRIX

Motive Classification	Under 20	20-29	30-39	40-49	Over 50	Total
Vocational	53	469	256	152	57	987
Sociocultural	79	313	98	55	35	580
Total	132	782	354	207	92	1,567
(P.01 = 21.666; d.f. = 9)						

A chi-square of 55.511 was computed from this data. With nine degrees of freedom, this chi-square was significant at the one per cent level of confidence. Those adult students in the age range from 20 to 49 were significantly more vocationally motivated than other age groups.

Previous college attendance Twenty-six per cent of the adult college students had completed no previous college courses while 1157 or 74 per cent had completed one or more semester hours of credit. A chi-square value of 356.1002 was obtained, which was significant at the .01

level of probability with one degree of freedom, and indicates there were significantly more adults with previous college experience included in the study.

Previous college attendance by motivation A chi-square test was applied to the data reproduced in Table 24 to test the null hypothesis that there is no difference in motivational choices selected by adult learners who have had previous college experience. The results produced a chi-square of 2.698. This value remained insignificant at the .05 level of probability; therefore the null hypothesis could not be rejected. Previous college attendance was not a factor motivational choices.

TABLE 24

PREVIOUS COLLEGE ATTENDANCE BY MOTIVATION

Motive Classification	Previous College	No Previous College	Total
Vocational	715	272	987
Sociocultural	442	138	580
Total	1157	410	1567
(P.01 = 6.635 (P.05 = 3.841 > d.f. = 1)			

Salary Each adult participating in the study was asked to check his level of income on the questionnaire.

The distribution by level of income is listed in Table 25.

TABLE 25
DISTRIBUTION BY LEVEL OF INCOME

Income Level	Number
Under \$4,000.	240
\$4,000 - 4,999.	194
\$5,000 - 5,999.	225
\$6,000 - Up	735
(P.01 = 6.635; d.f. = 1)	

A chi-square test applied to this data yielded a value of 574.683 which was significant at the .01 level of probability. Substantially more adults were in the \$6000-up bracket.

Salary by motivation The salary by motivation matrix is presented to test the null hypothesis that there is no difference in choices selected for attending college classes by level of income of the adult student. These data are presented in Table 26. From this data, a chi-square value of 41.927 was obtained which was significant at the one per cent level of confidence with seven degrees of freedom. Those adult students whose income was \$6,000. or more were significantly more vocationally motivated to attend evening college classes, while adults with income levels under

\$4,000. indicated sociocultural motivation to attend.

TABLE 26

SALARY BY MOTIVATION MATRIX

Motive	Under \$4,000.	\$4000-4999	\$5000-5999	\$6000-Up	Total
Vocational	110	130	152	501	893
Sociocultural	130	64	73	234	501
Total	240	194	225	735	1394
(P.01 = 18.475; d.f. = 7)					

Academic achievement Grade point average was used as the criterion for assessing academic achievement within each of the motivational choices. The total number of attempted hours and grade points for all students in each of the categories on the check-list was computed. The grade point average was calculated by dividing the total grade points by the total attempted hours. The results are listed in Table 27. These values were recomputed by motivational classification--vocational or sociocultural, and the results of this calculation is reported in Table 28.

TABLE 27
ACADEMIC ACHIEVEMENT

<u>Motivational Choice</u>	<u>Grade Point Average</u>
To become more familiar with the broader aspects of man's knowledge	2.75
To become more effective in my present job	2.70
To supplement my high school education	2.45
To supplement my college education	2.50
To build new friendships or enhance my social life	3.00
To prepare for job or career advancement in my present occupation	2.83
To develop a greater appreciation for the Arts	3.06
To prepare for a type of job that I do now now hold	2.66
To find or develop a new interest or hobby	3.57
To increase my understanding of life and living in today's world	2.60
To stimulate personal development	2.72
Other	2.74
Total	2.70

TABLE 28

ACADEMIC ACHIEVEMENT BY MOTIVATION CLASSIFICATION

Motivation Classification	Grade Point Average
Vocational	2.74
Sociocultural	2.54
Total	2.70

It can be observed that the grade point average is slightly higher for those with vocational motives as compared with adults who indicated sociocultural motives.

In summary, the findings revealed from the statistical data gathered were:

1. The null hypothesis that there is no difference in preferences of one choice over another selected by adult students as reasons for enrolling in evening courses was rejected. There was a significant difference in preferences.

2. There were significantly more adults attending evening courses for vocational reasons than for sociocultural motives, and the theory that the majority of adult evening students are motivated by and are interested in

preparation for a type of job that they did not hold or to prepare for job or career advancement in their present occupation was substantiated.

3. There were substantially more adult students employed than unemployed.

4. Adults who were employed were vocationally motivated, while unemployed adults were socioculturally motivated to attend evening classes.

5. The null hypothesis that there is no difference between male and female students as to motivation to attend evening college courses was rejected. Men were significantly more vocationally motivated than women.

6. Substantially more adults in the age group 20 - 29 enroll in evening college classes.

7. Those adult students in the age range of 20 to 49 were significantly more vocationally motivated than other age groups. The null hypothesis was rejected.

8. There were substantially more adults with previous college experience included in the study.

9. Previous college attendance was not a factor in motivational choices. The null hypothesis that there is no difference in motivational choices selected by adult

learners who have had previous college experience was not rejected.

10. Substantially more adults were in the \$6,000. or more level of income bracket. The null hypothesis that there is no difference in choices selected for attending college classes by level of income of the adult student was rejected. Significantly more adults in the \$6,000-up income level were vocationally motivated while those students with incomes of less than \$4,000. were socioculturally motivated.

11. There was no observed difference in academic achievement by motivational classification, except that those who were vocationally motivated had a slightly higher grade point average.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this inquiry was to explore the nature of the students attending one adult college program, in terms of descriptive data in the personal, social, economic, and educational areas; and to determine by statistical methods how motivation and other factors such as sex, age, previous college attendance, level of income of the adult student, and academic achievement relate to his academic success.

The theory was postulated that most adult learners are unhappy with their present vocational situation, and that college attendance is a means of occupational advancement. The specific objective of this inquiry was to test the theory that the majority of adult evening students who are enrolled for college credit are motivated by and are interested in preparation for a type of job that they do not hold or to prepare for job or career advancement in their present occupations. Several null hypotheses were presented to test these theories.

While several investigations have dealt with the adult

student in public school adult education programs, library and extension programs, Y.M.C.A. and Y.W.C.A. programs for adults, and other adult education agencies, none have centered attention around motivation and factors characterizing adult learners enrolled in evening college classes for credit. A few recent studies have skirted the issue and have reported information only toward the periphery of the topic.

While the focus of the present inquiry centers around adult learners attending an evening college program, it is recognized that the adult attending an evening college program is influenced partly as a function of the following factors:

1. The objectives of the institution, especially as reflected in course offerings.
2. The admission procedures and requirements including cost, counseling, prerequisites and standards.
3. The effectiveness of the methods used to inform the adult community of the availability of the adult evening college program.
4. The sensitivity to the needs of the community within the institution's area of intent.

Research Design Adults enrolled as part time students in college credit courses scheduled during the evening hours by University College, Center for Continuing Education at Drake University were included in this study. The data were collected during the Fall semester of 1964, and included only those college credit courses meeting on the Drake University campus. The study did not include regular full time day students enrolled in evening classes, nor did it include credit courses offered in extension centers. Since the regular full time day student did not fit the criteria and purposes of this investigation, and the students enrolled in extension centers were from a highly select group, it was felt that inclusion of data from these sources would have presented a serious response bias.

A questionnaire was devised in order to obtain the information needed to analyze motivational, personal, social, and economic factors characterizing the adult population defined by this inquiry. A first draft of the questionnaire was administered to a group of public school administrators enrolled in a post-graduate course in educational research. The trial respondents commented on the meaning of their responses and as to the clarity and ease of completion of the instrument. The questionnaire was revised to incorporate

the suggested improvements made by this group.

The adult student was asked to consider twenty-nine questions. The answers provided information as to sex, age, marital status, academic achievement, high school curriculum, previous college attendance, certificates or degrees earned, semesters of previous evening college attendance, number of hours usually taken in evening classes, degree plans, use of counseling services, motivation for attending evening classes, significance of course work to motivational choice, employment history and vocational aspiration, socio-economic data, residency, and the student's opinion of the effectiveness of evening college.

The sources of data describing the adult learner consisted of information gathered from:

1. Responses of 1,567 adult evening college students to a questionnaire distributed to all class rooms during the week of December 14, 1964 and administered by the instructor.
2. A dean's card which contained enrollment information for all students completing the questionnaire.
3. A permanent record card filed in the office of the dean of University College. This record

provided the information for total attempted hours and grade points for each student.

Data from the questionnaire, the student registration card, and the student permanent record card were punched into IBM cards. Electronic accounting machines were used to tabulate and summarize the data for analysis. The approach used to identify motivational factors consisted of an item on the questionnaire in which the adult part time student was asked to choose the single most important reason for attending evening college classes for credit from a check list of twelve alternatives.

Summary of Descriptive Data In summary, the findings revealed from the descriptive data were:

More men than women were enrolled in evening college credit courses.

The great majority of students enrolled in late afternoon or evening classes for college credit were married.

Almost 70 per cent of the adults included in the study had previously completed one or more years of college work.

Three-fourths of the adults had completed a college preparatory or general curriculum in high school.

More than 55 per cent of the adult students had not completed any formal program in college, while 45 per cent had completed a college certificate or degree program.

Three-fourths of the adults had been enrolled in two or more semesters of evening college classes prior to this inquiry.

The greatest majority of the students, 93 per cent generally carried three or more semester hours of credit per semester. Almost 25 per cent carried six semester hours of credit each semester, while 86 adult students indicated they enrolled for more than ten semester hours.

Sixty-six per cent of the students were working toward a college degree.

Sixty-five per cent checked that they were familiar with the degree requirements in the area of their interests.

Sixty-six per cent of the students had never visited the college for counseling or advice. Of the 34 per cent who had sought counseling, 369 students sought help before they enrolled, and 164 after enrollment.

The majority of students chose a vocational motive as the most important reason for attending University College.

More than 90 per cent of the students felt that the

content of the courses taken in University College had helped them attain their goals.

Seventy-eight per cent were self motivated to attend evening classes.

More than 89 per cent were employed full time. As a group, then, they would be expected to have heavy demands made upon their time, unlike the persons who were unemployed, employed part time or who were full time students.

Evidence of employment stability was found in that more than 63 per cent had held only one or two full time jobs since leaving full time school.

Concurring with the vocational motivation theory, 1,051 students indicated that they either expected to be in the same occupation but at a higher level, or that they expected to be in different occupation in five years.

Almost half the sample had incomes ranging from \$6,000. upward, while 15 per cent indicated income levels of less than \$4,000. annually.

The majority of students were residents of Des Moines, and those who traveled to attend University College classes indicated an average number of one way miles to be 32.5. The range of miles commuted one way was two to 175.

Implications for Future Research

The very act of deciding to participate in an educative activity is an important occurrence related to motivation. Many considerations influence the individual adult in determining whether or not he will even consider such a decision and if he does, what factors he is likely to weigh in arriving at a decision. The following list of questions suggest some of the ways in which this aspect of motivation might further be explored:

1. How do adults' attitudes concerning educative activities vary when comparing a group of participants in an adult education program with a cross sectional group of non-participants? Which attitudes seem to be related to differential motivation and participation?
2. In comparing adult education participants with non participants, which need variables (achievement, affiliation, control, etc.) clearly differentiate between the two populations?
3. Within an adult education agency, how are expressed reasons for attending related to variables such as social class, type of course, withdrawal, and personality characteristics.

4. In comparing adult education participants with non participants who express interest in adult education, what does each group perceive as the major barriers and facilitators to participation in adult education?
5. To what degree can the individual identify the factors that seem to influence him most to decide to embark on an effort to change his own behavior or at least place himself in a situation where a change is likely?
6. For each type of need, goal, reason, what is the nature of the reward that encourages the individual to continue to participate in the learning experience? For each type of need, goal, reason, what causes the individual to withdraw from the learning experience?
7. What are the various types of satisfactions that adults anticipate in an educative experience, and how is each related to learning gains.
8. As a follow up of this study, it would be of interest to discover if in fact, the adults who indicated vocational motivation to attend evening

college classes did advance to a higher level in their occupation or changed to a different occupation with greater socioeconomic value as a result of participation in adult evening courses.

In Conclusion The more significant findings of this inquiry are as follows:

1. Motivation There was a significant difference in preferences chosen by adult students when asked to identify the single most important reason for enrolling in University evening courses for credit. It can be concluded that there were significantly more adults attending evening courses for vocational reason than for sociocultural motives. These results substantiated the theory that the majority of adult evening students are motivated by and are interested in preparation for a type of job that they do not hold or to prepare for job or career advancement in their present occupation.
2. Employment by Motivation A strong vocational motive to attend evening college classes was indicated by those adult students who were employed full time. Unemployed adults chose sociocultural motives as reasons for attending evening classes.

3. Sex by Motivation The null hypothesis that there is no difference between male and female students as to motivation to study in college evening classes was rejected. Men were significantly more vocationally motivated than women.
4. Age by Motivation It can be concluded on the basis of this investigation that those adult students in the age range from 20 to 49 years are significantly more vocationally motivated than other age groups.
5. Previous College Attendance by Motivation Data gathered on previous college attendance and motivational choices failed to yield a significant chi square value at the .05 level of probability. Previous college attendance did not discriminate those students with no previous college attendance as to motivation to attend evening college classes.
6. Salary by Motivation Those adult students whose level of income was \$4,000. or less chose socio-cultural reasons for attending evening college classes while those adults with \$6,000. annual income were vocationally motivated to attend.

7. Academic Achievement The grade point average was slightly, but not significantly, higher for those adults who chose vocational motives to attend as compared to adults who checked sociocultural motives.

Since a culture tends to be age-graded, and to offer different types of stimulation, satisfaction potential, and frustration to different age groups, it might well be anticipated that the concept of environmental press would also be especially useful in explaining age trends. Cycles of satisfaction and frustration in work or in marriage may be explained, for example, by changing need-press relationships. A job which satisfies at one period of life may not satisfy at a later time when one's psychological needs have changed, or one's capacities for achieving gratification of needs have altered.

These comments introduce the concluding section of this study which relates to basic sources of satisfaction in life and their implication for adult education. It is almost self evident that because of technological advances we not only have more leisure available but less opportunity for intrinsic satisfaction in one of the historically important

areas of gratification: work. One important implication of this change is that other means of basic gratifications must be found. While this is an important challenge for American society, it also represents an opportunity for adult education institutions.

Applying the need-press concept to this situation, a major question concerns the degree to which adult education programs are perceived by adults as yielding opportunities for need-satisfaction. As shown in this inquiry, older people are proportionately less represented in adult education programs. These findings suggest that the general population, at least, does not have a positive image of such programs. A basic problem, then, would seem to involve the study of the character of the "image" people hold of adult education, particularly image as defined as the perceived need-satisfaction-potential of adult education.

Moving from the total perception of adult education to the curriculum, it is apparent that the motivations of adults, as they change with age, will have important implications for the program offered. Research directed to more detailed analysis of the goals of individuals, the avenues by which they satisfy expansion needs, as well as developmental tasks and sources of anxiety, will have important implications

as to the nature of specific offerings appropriate for people in different phases of life.

As this study indicates, courses were taken for vocational purposes more often in younger adult years but for sociocultural purposes in later years. In somewhat different terminology, this implies that the courses taken in young adult years have instrumental value in the service of other motives or goals, whereas in later years when other avenues of expansion are blocked, people find intrinsic satisfaction in adult education. If motivational patterns of individuals are complex, equally complex is the potential of the subculture called adult education for the satisfaction of needs.

Finally, the findings on motivational changes with age have important meanings for adult education methodology. Particularly relevant is the increasing susceptibility to threat that characterizes older age groups, the resultant personality changes, and the implications these trends have for instructional procedures.

BIBLIOGRAPHY

1. Beals, R. A. Aspects of post-collegiate education. New York, New York, American Association for Adult Education. 1955.
2. Bordin, E. S., Nachmann, B., and Segal, S. J. An articulated framework for vocational development. *Journal of Counseling Psychology*. 10:107-116. 1963.
3. Cass, J. C. and Tiedeman, D. V. Vocational development and the election of a high school curriculum. *Personnel and Guidance Journal*. 38:538-545. 1960.
4. Deane, Stephen R. Who seeks adult education and why? *Adult Education*. 1:18-25. 1950.
5. Field, F. L., Kahas, C. D., and Tiedeman, D. V. The self-concept in career development; a construct in transition. *Personnel and Guidance Journal*. 41:767-771. 1963.
6. Flood, W. E. and Crossland, R. W. Origins of interest and motives for study of natural sciences and psychology among adult students in voluntary courses. *British Journal of Educational Psychology*. 18:243-246. 1948.
7. Galinsky, M. D. Personality development and vocational choice. *Journal of Counseling Psychology*. 9:299. 1962.
8. Garrett, H. E. Statistics in psychology and education. New York, New York, David McKay Co. 1958.
9. Ginzberg, E., Ginsberg, S. W., Axelrod, S., and Herna J. L. Occupational choice. New York, New York, Columbia University Press. 1951.
10. Grigg, A. E. Childhood experiences with parental attitudes: a test of Roe's hypothesis. *Journal of Counseling Psychology*. 6:1953-1955. 1959.

11. Hagen, I. Careers and family atmosphere: a test of Roe's theory. *Journal of Counseling Psychology*. 7:251-256. 1960.
12. Hewer, V. H. What do theories of vocational choice mean to a counselor? *Journal of Counseling Psychology*. 10:118-125. 1963.
13. Holland, J. L. Some explorations of a theory of vocational choice. *Psychological Monographs*. Number 545. 1962.
14. Holland, J. L. A theory of vocational choice. *Journal of Counseling Psychology*. 6:35-44. 1959.
15. Kaplan, A. A. Socio-economic circumstances and adult participation in certain cultural and educational activities. New York, New York, Columbia University Press. 1944.
16. Kuhlen, R. G. and Johnson, G. H. Changes in goals with adult increasing age. *Journal of Counseling Psychology*. 16:1-4. 1952.
17. Marcus, R. and Agiolo, P. A survey of student opinion in the division of adult education. Louisville, Kentucky, University of Louisville Press. 1953.
18. Maslow, A. H. Motivation and personality. New York, New York, Harper Brothers Publishers. 1954.
19. McGregor, D. The human side of the enterprise. New York, New York, McGraw-Hill Publishing Co. 1960.
20. Munn, N. L. Introduction to psychology. Boston, Mass., Houghton-Mifflin Publishing Co. 1962.
21. Nachmann, B. Childhood experience and vocational choice in law, dentistry, and social work. *Journal of Counseling Psychology*. 7:243-250. 1960.
22. Nicholson, D. Why adults attend school: an analysis of motivating factors. Columbia, Missouri, University of Missouri Press. 1956.

23. Nicol, J., Shea, A. A., Simmins, G. J., and Sim, R. A., eds. Canada's farm radio forum. Paris, France, United Nations Educational, Scientific and Cultural Organization. 1954.
24. O'Hara, R. R. and Tiedeman, D. V. Vocational self-concept in adolescence. Journal of Counseling Psychology. 6:292-307.
25. Roe, A. Early determinants of vocational choice. Journal of Counseling Psychology. 4:212-217. 1957.
26. Roe, A. The psychology of occupations. New York, New York, John Wiley & Sons, Inc. 1956.
27. Sanford, F. H. Psychology: a scientific study of man. Belmont, California, Wadsworth Publishing Co. 1962.
28. Segal, S. J. A psychoanalytic analysis of personality factors in vocational choice. Journal of Counseling Psychology. 8:202-210. 1961.
29. Sherif, M. An outline of social psychology. New York, New York, Harper & Row Publishers. 1956.
30. Styler, W. E. The motives of adult students. Adult Education (London). 23:106-112. 1950.
31. Super, D. E. The definition and measurement of early career behavior: a first formation. Personnel and Guidance Journal. 41:775-780. 1963.
32. Super, D. E. The psychology of careers. New York, New York, Harper & Row Publishers. 1957.
33. A survey of characteristics and interests of evening class students taken during January 1954. Minneapolis, Minn. General Extension Division, University of Minnesota. 1954.
34. Survey of evening division student body. Coral Gables, Florida, University of Miami Press. 1962.

35. Thompson, C. O. University extension in adult education. Chicago, Illinois, University of Chicago Press. 1943.
36. Tiedeman, D. V. Decision and vocational development: a paradigm and its implications. Personnel and Guidance Journal. 40:15-21. 1961.
37. Utton, A. C. Recalled parent-child relations as determinants of vocational choice. Journal of Counseling Psychology. 9:49-53. 1962.
38. Wert, J. E., Neidt, C. O., and Ahmann, J. S. Statistical methods in educational and psychological research. New York, New York, Appleton-Century-Crofts Publishing Co. 1954.
39. Wilson, E. Determinants of participation in policy formation in a college community. Human Relations. 7:287-312. 1954.

APPENDIX A

100
DRAKE UNIVERSITY
DES MOINES 11, IOWA

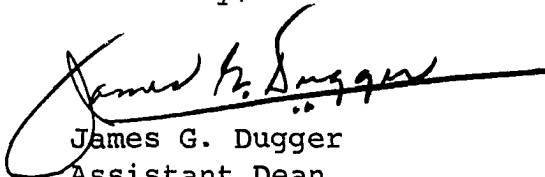
UNIVERSITY COLLEGE
OFFICE OF THE DEAN

Dear University College Student:

The purpose of this questionnaire is to obtain further information about the needs, interests, and background of students in adult education classes. With this information, the deans in charge of adult education programs will have added insight as to how they can better provide for the needs of adult education students, such as by strengthening or redesigning courses or by making changes in the total programs being offered.

All information on this questionnaire is strictly confidential and will be used only in summary form. The only reason that we have asked you to write your name above is so that coordination of the research will be facilitated. Your cooperation is truly appreciated. Thank you.

Sincerely,

A handwritten signature in dark ink, appearing to read "James G. Dugger", is written over a horizontal line.

James G. Dugger
Assistant Dean
University College
Drake University

BE SURE TO COMPLETE BOTH SIDES OF THE QUESTIONNAIRE

101
UNIVERSITY COLLEGE
STUDENT QUESTIONNAIRE

Please print your name _____
Last First Middle

Directions: Please try to answer every question. If a question does not apply to you, simply leave it blank. If you have already completed the questionnaire in another class this week, you need not complete this form.

1. Check your sex Male () 1-5
Female () 2
2. What is your age today? () -6
3. Check your marital status Single () 1-8
Married () 2
Widow () 3
Widower () 4
Divorced () 5
4. Check the highest grade you have completed.
11th grade or less () 1-9
12th grade (H.S. Grad) () 2
Trade, Business, or Technical School () 3
1 year college () 4
2 years college () 5
3 years college () 6
College Grad. () 7
Masters Degree () 8
Doctors Degree () 9
Other (Indicate) () 0
5. In what field was the major part of your high school training accrued?
Business & Secretarial () 1-10
College Preparatory () 2
Technical or Vocational () 3
General Curriculum () 4
Other (Please specify) () 5
6. Check the category which indicates the number of semester hours of college work you have completed.
None () 1-11
1 - 15 () 2
16 - 30 () 3
31 - 45 () 4
46 - 60 () 5
61 - 75 () 6
76 - 90 () 7
91 - 105 () 8
106 - 120 () 9
More than 120 () 0

BE SURE TO ANSWER THE QUESTIONS ON THE BACK SIDE OF THIS PAGE

7. Check any of the Certificates or Degrees which you have earned.
- None () 1-12
Certificate () 2
Bachelors Degree () 3
Masters Degree () 4
Doctors Degree () 5
Other (Specify)() 6
-
8. Check the total number of semesters you have attended EVENING college classes, whether at Drake or elsewhere, including this current semester.
- One semester () 1-13
Two semesters () 2
Three semesters () 3
Four semesters () 4
Five semesters () 5
6-10 semesters () 6
11-15 semesters () 7
16-20 semesters () 8
21-25 semesters () 9
More than 25 semesters () 0
9. Generally, how many credit hours do you take in EVENING classes each semester?
- Two semester hours () 1-14
Three semester hours () 2
Four semester hours () 3
Five semester hours () 4
Six semester hours () 5
Seven semester hours () 6
Eight semester hours () 7
Nine semester hours () 8
Ten semester hours () 9
More than ten semester hours () 0
10. Are you working toward a college degree?
- Yes () 1-15
No () 2
Undecided () 3
11. If yes, do you plan to take the major portion of this work in University College?
- Yes () 1-16
No () 2
Undecided () 3
12. If no, will you transfer your credits to:
- A. Drake's regular day program?
- Yes () 1-17
No () 2
- B. Some other institution?
- Yes () 3
No () 4
- C. Undecided?
- () 5
13. Are you familiar with the degree requirements in your area of interest?
- Yes () 1-18
No () 2

14. Have you ever visited the University College for counseling or advice? Yes () 1-19
No () 2
- A. If yes, how many times? () -20
- B. Did you seek help before you enrolled? Yes () 1-22
No () 2
- C. Did you seek help after you enrolled? Yes () 1-23
No () 2
15. Which of the following is your most important reason for attending University College at Drake?
- A. To become more familiar with the broader aspects of man's knowledge. () 1-24
- B. To become more effective in my present job. () 2
- C. To supplement my high school education. () 3
- D. To supplement my college education () 4
- E. To build new friendships or enhance my social life () 5
- F. To prepare for job or career advancement in my present occupation () 6
- G. To develop a greater appreciation of the Arts (such as music, literature, fine arts, etc.) . . () 7
- H. To prepare for a type of job that I do not now hold() 8
- I. To find or develop a new interest or hobby () 9
- J. To increase my understanding of life and living in today's world. () 0
- K. To stimulate personal development. () X
- L. Other (Please specify)_____ () &
16. Do you feel that the content of the courses you have taken in University College has helped you (or will help you) attain the goal you specified in question 15 above? Very much () 1-25
Moderately () 2
Some () 3
Very little () 4
17. Who encouraged you to attend University College? Self () 1-26
Spouse() 2
Father () 3
Mother () 4
Sister () 5
Brother () 6
Employer () 7
Supervisor () 8
Friend () 9
High School Teacher() 0
Admission Counselor () X
Other_____ () &
18. Are you employed now? Yes () 1-27
No () 2

BE SURE TO ANSWER THE QUESTIONS ON THE BACK SIDE OF THIS PAGE

19. How many jobs have you held since you first left full-time school?
- None () 0-28
One () 1
Two () 2
Three () 3
Four () 4
Five () 5
Six or more () 6
20. What kind of job do you expect to have five years from now? Just pick your best guess. Check only one of following:
- A. I do not expect to be employed five years from now. () 1-29
B. I expect to be primarily a homemaker. () 2
C. I expect to have about the same job that I now have . () 3
D. I expect to be in the same occupation but at a higher level. () 4
E. I expect to be in a different occupation in five years () 5
F. I can't even guess what I'll be doing in five years . () 6
21. Please check whether you agree or disagree with the following statements as they apply to you.
- A. I am fairly well satisfied with the work I do now. Agree () 1-30
Disagree () 2
B. I feel that my work is not as good as it used to be. Agree () 1-31
Disagree () 2
C. I think I am doing the best work of my life. Agree () 1-32
Disagree () 2
D. I am discouraged and dissatisfied with my work. Agree () 1-33
Disagree () 2
E. My main satisfaction is derived from my work. Agree () 1-34
Disagree () 2
22. How many brothers or sisters were older than you?
- None () 0-35
One () 1
Two () 2
Three or more () 3
23. How many brothers or sisters were younger than you?
- None () 0-36
One () 1
Two () 2
Three or more () 3
24. (Optional) In which of the following income ranges would your total income be included. Include contributions from all members of your family, or your parents' income if you are a dependent.
- Less than \$4,000. () 1-37
\$4,000 - \$4,499 () 2
\$4,500 - \$4,999 () 3
\$5,000 - \$5,499 () 4
\$5,500 - \$5,999 () 5
\$6,000 - \$9,999 () 6
\$10,000 and up () 7

- Thank you for completing this questionnaire.

APPENDIX B
CALCULATIONS

Motivational Choices

	<u>Observed</u>	<u>Expected</u>
a. To become more familiar with the broader aspects of man's knowledge.	81	142.4545
b. To become more effective in my present job.	236	142.4545
c. To supplement my high school education.	36	142.4545
d. To supplement my college education.	210	142.4545
e. To build new friendships or enhance my social life.		
f. To prepare for job or career advancement in my present occupation.	431	142.4545
g. To develop a greater appreciation for the Arts.	10	142.4545
h. To prepare for a type of job that I do not now hold.	320	142.4545
i. To find or develop a new interest or hobby.	8	142.4545
j. To increase my understanding of life and living in today's world.	49	142.4545
k. To stimulate personal development	95	142.4545
l. Other	91	142.4545
Total	1567	

$$\chi^2 = \sum \left[\frac{(\text{Observed} - \text{Expected})^2}{\text{Expected}} \right]$$

$$\chi^2 = \frac{(81-142.4545)^2 + (236-142.4545)^2 + \dots + (91-142.4545)^2}{142.4545}$$

$$\chi^2 = \frac{192,458.7276}{142.4545} = \underline{\underline{1,351.0194}} * *$$

P_{.01} with 10 degrees of freedom = 23.209

	Observed	Expected
Vocational Motives	987	783.5
Sociocultural Motives	580	783.5
Total	1,567	1,567.0

$$\chi^2 = \frac{(987 - 783.5)^2 + (580 - 783.5)^2}{783.5}$$

$$\chi^2 = \frac{(203.5)^2 + (203.5)^2}{783.5}$$

$$\chi^2 = \underline{\underline{105.7109}} * *$$

P_{.01} with 1 degree of freedom = 6.635

* * Here and throughout Appendix B the double asterisk indicates that the computed chi-square value is significant at the one per cent level of confidence.

EMPLOYMENT

	Observed	Expected
Employed	1404	772.5
Unemployed	141	772.5
Total	1545	1545

$$\chi^2 = \frac{(1404-772.5)^2}{772.5} + \frac{(141-772.5)^2}{772.5}$$

$$\chi^2 = \frac{(631.5)^2}{772.5} + \frac{(631.5)^2}{772.5} = \underline{\underline{1,302.4718}} **$$

P_{.01} with 1 degree of freedom = 6.635

EMPLOYMENT X MOTIVATION

	Employed	Unemployed	Total
Vocational Motives	906	68	974
Sociocultural Motives	498	73	571
Total	1404	141	1445

$$\chi^2 = \frac{N(AD - BC)^2}{(A+B)(C+D)(A+C)(B+D)}$$

$$\chi^2 = \frac{1445 [(906)(73) - (68)(498)]^2}{(974)(571)(1404)(141)}$$

$$\chi^2 = \frac{1445 (66138 - 33864)^2}{20,218,422,516}$$

$$\chi^2 = \frac{1,505,128,004,820}{20,218,422,516}$$

$$\chi^2 = \underline{\underline{74.443 * *}}$$

$$P_{.01} \text{ with 1 degree of freedom} = 6.635$$

SEX

	Observed	Expected
Male	885	783.5
Female	682	783.5
Total	1567	1567

$$\chi^2 = \frac{(885 - 783.5)^2 + (682 - 783.5)^2}{783.5}$$

$$\chi^2 = \frac{(101.5)^2 + (101.5)^2}{783.5}$$

$$\chi^2 = \underline{\underline{26.298}} * *$$

P_{.01} with 1 degree of freedom = 6.635

SEX X MOTIVATION

	Male	Female	Total
Vocational Motives	597	390	987
Sociocultural Motives	288	292	580
Total	885	682	1567

$$\chi^2 = \frac{N(AD - BC)^2}{(A+B)(C+D)(A+C)(B+D)}$$

$$\chi^2 = \frac{1567 [(597)(292) - (390)(288)]^2}{(987)(580)(885)(682)}$$

$$\chi^2 = \underline{\underline{17.436}} **$$

P_{.01} with 1 degree of freedom = 6.635

AGE

	Under 20	20-29	30-39	40-49	Over 50
Observed	132	782	354	207	92
Expected	313.4	313.4	313.4	313.4	313.4
$f_o - f_e$	-181.4	468.6	40.6	-106.4	-221.4

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

$$\chi^2 = \frac{32905.96 + 219585.96 + 1648.36 + 11320.96 + 49017.96}{313.4}$$

$$\chi^2 = \underline{\underline{1003.760}} **$$

$P_{.01}$ with four degrees of freedom = 13.277

AGE X MOTIVATION

	Under 20	20-29	30-39	40-49	Over 50	Total
Vocational	53 A (83.14)	469 B (492.56)	256 C (222.97)	152 D (130.38)	57 E (57.95)	987
Socio-cultural	79 F (48.86)	313 G (289.44)	98 H (131.03)	55 I (76.62)	35 J (34.05)	580
Total	132	782	354	207	92	1567

$$A = \frac{(132)(987)}{1567} = 83.14$$

$$B = \frac{(782)(987)}{1567} = 492.56$$

$$C = \frac{(354)(987)}{1567} = 222.97$$

$$D = \frac{(207)(987)}{1567} = 130.38$$

$$E = \frac{(92)(987)}{1567} = 57.95$$

$$F = \frac{(132)(580)}{1567} = 48.86$$

$$G = \frac{(782)(580)}{1567} = 289.44$$

$$H = \frac{(354)(580)}{1567} = 131.03$$

$$I = \frac{(207)(580)}{1567} = 76.62$$

$$J = \frac{(92)(580)}{1567} = 34.05$$

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

$$\begin{array}{rcl} A & = & 10.926 \\ B & = & 1.127 \\ C & = & 4.893 \\ D & = & 3.585 \\ E & = & 0.016 \\ F & = & 18.592 \\ G & = & 1.918 \\ H & = & 8.326 \\ I & = & 6.101 \\ J & = & 0.027 \end{array}$$

$$\chi^2 = \underline{\underline{55.511}} **$$

$P_{.01}$ with nine degrees of freedom = 21.666

PREVIOUS COLLEGE ATTENDANCE

	Previous College	No Previous College
Observed	1157	410
Expected	783.5	783.5
$f_o - f_e$	373.5	-373.5

$$\chi^2 = \frac{(373.5)^2 + (-373.5)^2}{783.5} = \frac{279004.5}{783.5}$$

$$\chi^2 = \underline{\underline{356.1002}} **$$

P._{.01} with one degree of freedom = 6.635.

PREVIOUS COLLEGE ATTENDANCE X MOTIVATION

	Previous College	No Previous College	Total
Vocational Motives	715	272	987
Sociocultural Motives	442	138	580
Total	1157	410	1567

$$\chi^2 = \frac{N (AD - BC)^2}{(A+B)(C+D)(A+C)(B+D)}$$

SALARY

	Under \$4000	\$4000-4999	\$5000-5999	\$6000 Up
Observed	240	194	225	735
Expected	348.5	348.5	348.5	348.5
$f_o - f_e$	-108.5	-154.5	-123.5	386.5

$$\chi^2 = \frac{11772.25 + 23870.25 + 15252.25 + 149382.25}{348.5}$$

$$\chi^2 = \underline{\underline{574.683}} * *$$

$P_{.01}$ with three degrees of freedom = 11.345

SALARY X MOTIVATION

	Under \$4000	\$4000-4999	\$5000-5999	\$6000 Up	Total
Vocational	110 (153.74) A	130 (124.28) B	152 (144.14) C	501 (470.84) D	893
Socio-cultural	130 (86.26) E	64 (69.72) F	73 (80.86) G	234 (264.16) H	501
Total	240	194	225	735	1394

$$A = \frac{(240)(893)}{1394} = 153.74 \quad B = \frac{(194)(893)}{1394} = 124.28$$

$$C = \frac{(225)(893)}{1394} = 144.14 \quad D = \frac{(735)(893)}{1394} = 470.84$$

$$E = \frac{(240)(501)}{1394} = 86.26 \quad F = \frac{(194)(501)}{1394} = 69.72$$

$$G = \frac{(225)(501)}{1394} = 80.86 \quad H = \frac{(735)(501)}{1394} = 264.16$$

$$\begin{aligned} A &= \frac{(110-153.74)^2}{153.74} = 12.448 \\ B &= 0.263 \\ C &= 0.429 \\ D &= 1.932 \\ E &= 22.179 \\ F &= 0.469 \\ G &= 0.764 \\ H &= 3.443 \end{aligned}$$

$$\chi^2 = \underline{\underline{41.927}}^{**}$$

$P_{.01}$ with seven degrees of freedom = 18.475.